IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (currently amended) An information processing device for performing broadcasting communications ~~by a transmitter transmitting data to each of~~ to a plurality of receivers ~~using a processor provided on a transmitter side~~, comprising:

a processor;

a storage unit storing receiver information which comprises plural pieces of information wherein each of the plural pieces is a piece of information about one receiver of the plurality of the receivers;

an input/output bus; and

a transmission unit ~~generating a packet for each receiver based on information about a receiver provided by the processor through an input/output bus and transmission data, and transmitting the packet to a connected network, in response to an instruction issued by said processor of said information processing device~~; and

wherein

the input/output bus provides connection among ~~a unit connecting~~ said transmission unit ~~to~~, the processor, and the storage unit ~~of said information processing device through the input/output bus~~;

the processor provides the receiver information stored in the storage unit to the transmission unit through the input/output bus; the transmission unit generates a packet for each of the plurality of receivers based on the receiver information and transmission data; and

the transmission unit transmits the packet to a connected network.

2. (currently amended) The device according to claim 1, further comprising

a plurality of said transmission units, wherein

said processor of said information processing device provides the same transmission data for the plurality of transmissions ~~transmission units~~ through the input/output bus, and provides ~~a~~ different ~~piece~~ pieces of the receiver information for each transmission ~~unit~~.

3. (currently amended) An information processing device for performing broadcasting communications ~~by a transmitter transmitting data~~ to each of a plurality of receivers ~~using a processor provided on a transmitter side~~, comprising:

a processor;

a storage unit storing receiver information which comprises plural pieces of information wherein each of the plural pieces is a piece of information about one receiver of the plurality of the receivers;

an input/output bus; and

a transmission unit ~~generating a packet for each receiver based on information about a receiver and transmission data provided by the processor through an input/output bus, and transmitting the packet to a connected network; and~~

~~a unit connecting said transmission unit to the processor of said information processing device trough the input/output bus, and~~; and

wherein

the input/output bus provides connection among said transmission unit, the processor, and the storage unit;

the processor provides the receiver information stored in the storage unit to the transmission unit through the input/output bus;

the transmission unit generates a packet for each of the plurality of receivers based on the receiver information and transmission data;

the transmission unit transmits the packet to a connected network; and

~~wherein~~ said transmission unit comprises:

a transmission schedule unit controlling a transmission schedule including a transmission order and transmission timing of a packet;

a receiver information management unit managing the receiver information;

a buffer unit storing and managing the transmission data; and

a packet unit generating a packet for a specified receiver according to the transmission schedule, and transmitting the packet.

4. (original) The device according to claim 3, wherein said transmission unit further comprises a transmission data input unit obtaining transmission data without receiving the transmission data from the processor of said information processing device.

5. (original) The device according to claim 3, further comprising:

a plurality of the transmission units; and

at least one input transmission unit comprising a transmission data input unit obtaining transmission data without receiving the transmission data from the processor of said information processing device, wherein

transmission data is provided from said input transmission unit to another transmission unit through the input/output bus.

6. (currently amended) An information processing device for performing broadcasting communications by a transmitter transmitting data to each of a plurality of receivers using a processor provided on a transmitter side, comprising:

a transmission unit generating a packet for each receiver based on information about a receiver and transmission data provided by the processor through an input/output bus, and transmitting the packet to a connected network; and

a unit connecting said transmission unit to the processor of said information processing device trough the input/output bus, and

wherein said transmission unit comprises:

a transmission schedule unit controlling a transmission schedule including a transmission order and transmission timing of a packet;

a receiver information management unit managing the receiver information;

a buffer unit storing and managing the transmission data; and

a packet unit generating a packet for a specified receiver according to the transmission schedule, and transmitting the packet, and ~~The device according to claim 3,~~

wherein said transmission schedule unit provides identification information for obtaining a piece of information about a specified receiver from the receiver information managed by said receiver information management unit, identification information for obtaining, from said buffer unit, data to be transmitted to the specified receiver, and information relating to transmission of a packet based on an order and timing predetermined for said packet unit.

7. (original) The device according to claim 6, wherein

said information relating to transmission of a packet contains information relating to a time at which a packet has previously been transmitted, and a time at which a packet is to be transmitted next time.

8. (currently amended) The device according to claim 3, wherein:

said receiver information ~~about a receiver~~ contains information required by said packet unit to generate a packet for each receiver; and

said receiver information management unit transfers to said packet unit a piece of the receiver information ~~about a receiver~~ corresponding to the receiver specified by said packet unit.

9. (currently amended) An information processing device for performing broadcasting communications by a transmitter transmitting data to each of a plurality of receivers using a processor provided on a transmitter side, comprising:

a transmission unit generating a packet for each receiver based on information about a receiver and transmission data provided by the processor through an input/output bus, and transmitting the packet to a connected network; and

a unit connecting said transmission unit to the processor of said information processing device trough the input/output bus, and

wherein said transmission unit comprises:

a transmission schedule unit controlling a transmission schedule including a transmission order and transmission timing of a packet;

a receiver information management unit managing the receiver information;

a buffer unit storing and managing the transmission data; and

a packet unit generating a packet for a specified receiver according to the transmission schedule, and transmitting the packet,

wherein said receiver information contains information required by said packet unit to generate a packet for each receiver and said receiver information management unit transfers to said packet unit a piece of the receiver information corresponding to the receiver specified by said packet unit, and

~~The device according to claim 8,~~ wherein: each piece of said receiver information ~~about a receiver is~~ contains information formed in a format of packet header information required when the transmission data is to be transmitted to a network; and

each piece of said receiver information ~~about a receiver~~ contains change information for identification of a fixed portion and a portion to be changed for each packet.

10. (currently amended) The device according to claim 9, wherein

said packet unit processes only ~~a~~ the portion to be changed ~~in information~~ according to the change information, generates packet header information using ~~a~~ the fixed portion that is unprocessed~~as a portion corresponding to the information about the receiver~~, generates a packet by combining the transmission data with the packet header information, and transmits the packet to a network.

11. (original) The device according to claim 3, wherein

said buffer unit manages management information for management of the transmission data, and auxiliary information for generation of a packet by said packet unit in addition to the transmission data.

12. (original) An information processing device for performing broadcasting communications by a transmitter transmitting data to each of a plurality of receivers using a processor provided on a transmitter side, comprising:

a transmission unit generating a packet for each receiver based on information about a receiver and transmission data provided by the processor through an input/output bus, and transmitting the packet to a connected network; and

a unit connecting said transmission unit to the processor of said information processing device trough the input/output bus, and

wherein said transmission unit comprises:

a transmission schedule unit controlling a transmission schedule including a transmission order and transmission timing of a packet;

a receiver information management unit managing the receiver information;

a buffer unit storing and managing the transmission data; and

a packet unit generating a packet for a specified receiver according to the transmission schedule, and transmitting the packet,

wherein said buffer unit manages management information for management of the transmission data, and auxiliary information for generation of a packet by said packet unit in addition to the transmission data, and~~The device according to claim 11,~~

wherein said buffer unit divides the transmission data into transmission data blocks having a predetermined length, and manages said transmission data block with the management information and the auxiliary information added to the block.

13. (original) The device according to claim 12, wherein:

said management information is information relating to a length of the transmission data block, and information relating to a number of receivers who are to receive the transmission data block; and

said auxiliary information refers to an error detection code of the transmission data block.

14. (original) The device according to claim 13, wherein:

said information relating to the number of receivers to receive the transmission data block is represented by a counter showing a number of receivers requiring the transmission data block;

a corresponding counter increases its value by 1 each time said transmission schedule unit refers to the transmission data block as data to be transmitted to a receiver;

a corresponding counter decreases its value by 1 each time said packet unit completes transmitting the transmission data block; and

said corresponding transmission data block is discarded when said buffer unit decreases said counter by 1 into 0.

15. (original) The device according to claim 13, wherein

said error detection code is a checksum of the transmission data block.

16. (original) The device according to claim 15, wherein

said checksum is obtained as a result of computing a sum of complements of 1 in a length unit equal to or longer than 16 bits predetermined for the transmission data block.

17. (currently amended) An information processing device for performing broadcasting communications by a transmitter transmitting data to each of a plurality of receivers using a processor provided on a transmitter side, comprising:

a transmission unit generating a packet for each receiver based on information about a receiver and transmission data provided by the processor through an input/output bus, and transmitting the packet to a connected network; and

a unit connecting said transmission unit to the processor of said information processing device trough the input/output bus, and

wherein said transmission unit comprises:

a transmission schedule unit controlling a transmission schedule including a transmission order and transmission timing of a packet;

a receiver information management unit managing the receiver information;

a buffer unit storing and managing the transmission data; and

a packet unit generating a packet for a specified receiver according to the transmission schedule, and transmitting the packet, and

~~The device according to claim 3,~~ wherein said transmission unit further comprises:

a reception unit receiving a packet from a network;

a received packet identification unit identifying whether or not the packet received by said reception unit can be processed by said transmission unit; and

a received packet processing unit processing the packet determined as processable by said received packet identification unit, and transferring the packet determined as unprocessable to the processor of said information processing device.

18. (currently amended) A network adapter provided in an information processing device which performs broadcasting communications ~~by a transmitter transmitting data to each receiver~~ to a plurality of receivers, comprising:

a transmission schedule unit controlling a transmission schedule including a transmission order and timing of a packet;

a receiver information management unit managing ~~information about the receivers~~receiver information which is provided by a processor of the information processing device and comprises plural pieces of information wherein each of the plural pieces is a piece of information about one receiver of the plurality of the receivers;

a buffer unit storing and managing transmission data; and

a packet unit generating a packet for ~~a~~ each of specified plural receivers based on the receiver information and the transmission data according to the transmission schedule, and transmitting the packet.

19. (original) The network adapter according to claim 18, further comprising

a transmission data input unit obtaining transmission data without receiving transmission data from a processor of said information processing device.

20. (currently amended) A network adapter provided in an information processing device which performs broadcasting communications by a transmitter transmitting data to each receiver to a plurality of receivers, comprising:

a transmission schedule unit controlling a transmission schedule including a transmission order and timing of a packet;

a receiver information management unit managing information about the receivers;

a buffer unit storing and managing transmission data;

a packet unit generating a packet for a specified receiver according to the transmission schedule, and transmitting the packet;~~The network adapter according to claim 18, further comprising:~~

a reception unit receiving a packet from a network;

a received packet identification unit identifying whether or not the packet received by said reception unit can be processed by said network adapter; and

a received packet processing unit processing the packet determined as processable by said received packet identification unit, and transferring the packet determined as unprocessable to the processor of said information processing device.

21. (currently amended) A method for generating a packet by an information processing device on a transmitter side for performing broadcasting communications to a plurality of receivers, and transmitting the packet, comprising:

transferring receiver information ~~about a plurality of receivers~~ to a network adapter in said information processing device by a processor of the information processing device wherein the receiver information comprises plural pieces of information and each of the plural pieces is a piece of information about one receiver of the plurality of the receivers;

obtaining transmission data by the network adapter;

generating a packet for each of the plurality of ~~receiver~~ receivers by the network adapter in said information processing device based on the ~~transferred information about a~~ receiver information and the transmission data; and

transmitting the generated packet by the network adapter of said information processing device~~, and~~

~~wherein said method is performed in response to an instruction issued by a processor of said information processing device~~.

22. (currently amended) A method for generating a packet by an information processing device on a transmitter side for performing broadcasting communications to a plurality of receivers, and transmitting the packet, comprising:

transferring receiver information to a network adapter in said information processing device by a processor of the information processing device wherein the receiver information comprises plural pieces of information and each of the plural pieces is a piece of information about one receiver of the plurality of the receivers;

obtaining transmission data by the network adapter;

generating a packet for each of the plurality of receivers ~~receiver~~ by ~~a~~ the network adapter in said information processing device based on ~~information about a receiver from a processor of said information processing device~~the receiver information and the transmission data; and

transmitting the generated packet by the network adapter of said information processing device, and

wherein said network adapter of said information processing device generates and transmits a packet for a specified receiver according to a transmission schedule including a transmission order and timing of the packet.

23. (currently amended) A method for generating a packet by an information processing device on a transmitter side for performing broadcasting communications, and transmitting the packet, comprising:

generating a packet for each receiver by a network adapter in said information processing device based on information about a receiver from a processor of said information processing device and transmission data; and

transmitting the generated packet by the network adapter of said information processing device. ~~The method according to claim 22, further comprising:~~

holding the receiver information ~~about the receiver~~ in a format of packet header information in advance; and

dividing the transmission data into blocks, and holding the blocks with management information corresponding each block and auxiliary information for generation of a packet added to each block. and

wherein said network adapter of said information processing device generates and transmits a packet for a specified receiver according to a transmission schedule including a transmission order and timing of the packet.

24. (canceled)